Mamiya

SERVICE INSTRUCTIONS

Mamiya C 330
Professional f
(EFC)

Mamiya
CAMERA CO., LTD.
TOKYO, JAPAN

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REPAIR MANUAL

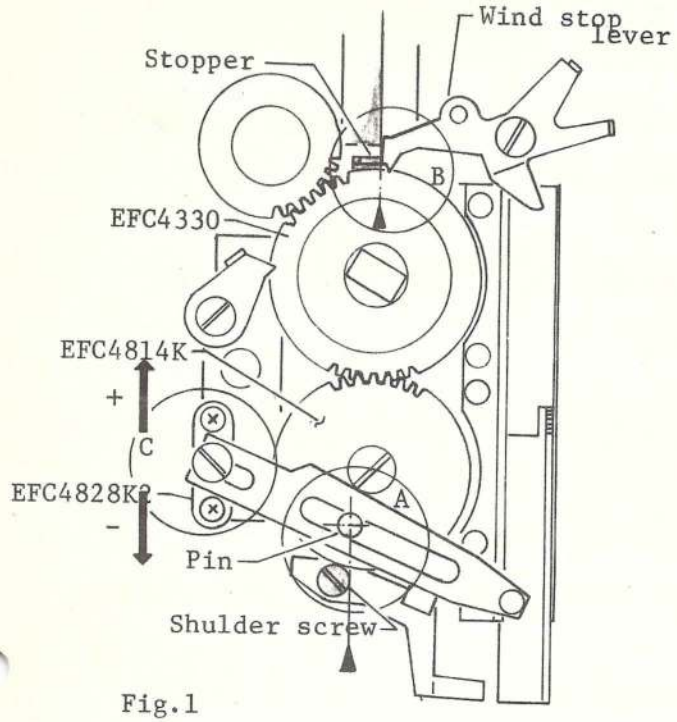


Fig.1

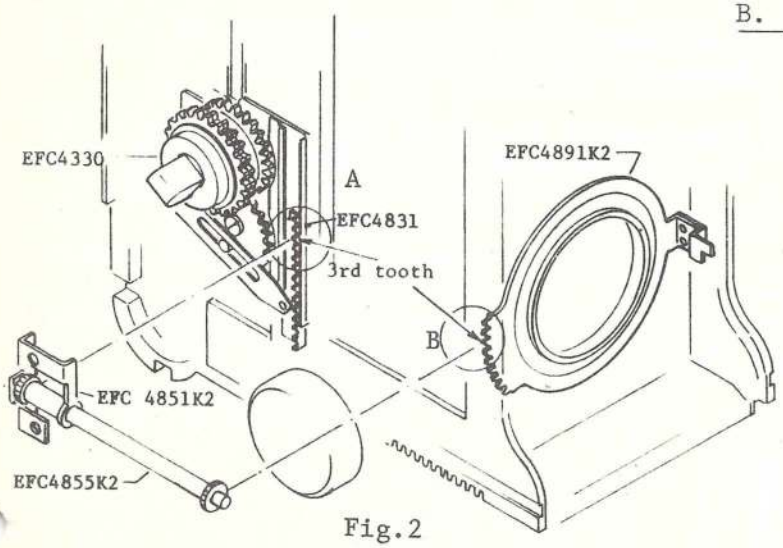


Fig.2

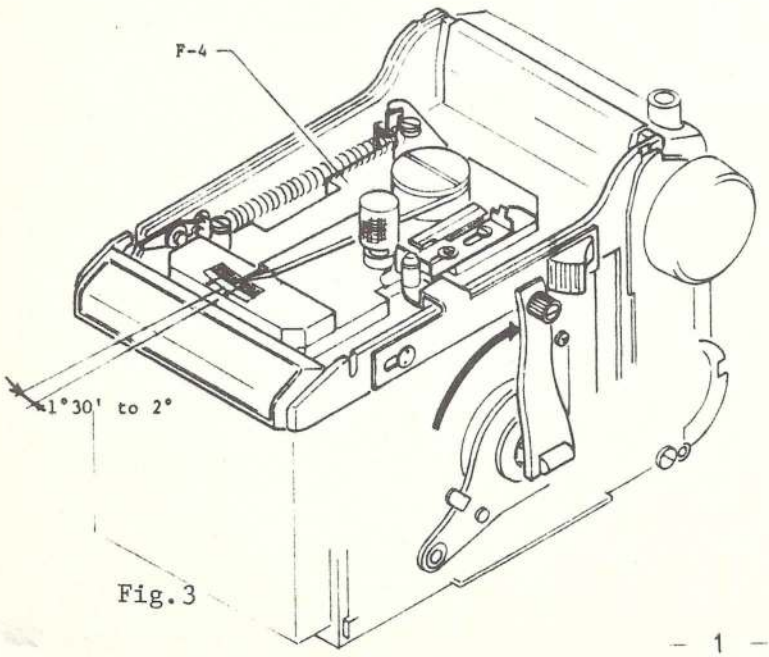


Fig.3

1. Film winding and Shutter cocking mechanism

A. Adjusting the Standard Position of Winding gear

After turning Winding gear EFC 4330 clockwise until it stops, the correct positions of gears and relative parts are shown in the circles (A) and (B) of Fig. 1.

Adjusting

a) Remove EFC 4330

b) Pin of Gear assy. EFC 4814 is nearly aligned to the edge of Shoulder screw, A by turning EFC 4814 counterclockwise.

c) Attach EFC 4330 so that its stopper is in contact with the edge of Wind stop lever. (B)

B. Meshing position of Shutter cocking gear

a) Setting position of Cocking link gear EFC 4851K2 is meshed with the 3rd tooth of Charge rack EFC 4831. (A) of Fig. 2.

b) Inser Link bar EFC 4855K2 to EFC 4851K2.

c) Gear of EFC 4855K2 is meshed with the 3rd tooth of Cocking gear EFC 4891K2. (B) of Fig. 2.

C. Adjusting Shutter cocking position

Standard position

a) Turn Winding lever clockwise.

b) Hand of the gauge indicate $1^{\circ}30'$ to $2^{\circ}00$. (Fig. 3)

Adjusting

a) Loosen 2 pcs. of screw PB2x2.

b) Slide Adjusting plate EFC 4828K. Refer to the circle (C) of Fig. 1.

2. Adjusting Film counter

2-1 Attaching Dividing disk assy. EFC 4353K2

a) Attach Spring EFC 4359.

b) Put EFC 4353K2 on it and hook the Spring to it. Fig. 4.

c) Then turn EFC 4353K2 counterclockwise for 1 turn and fix it by Shoulder screw EFC 4351. Fig. 5

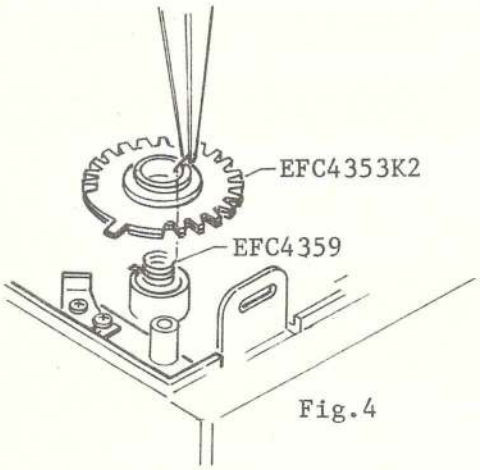


Fig.4

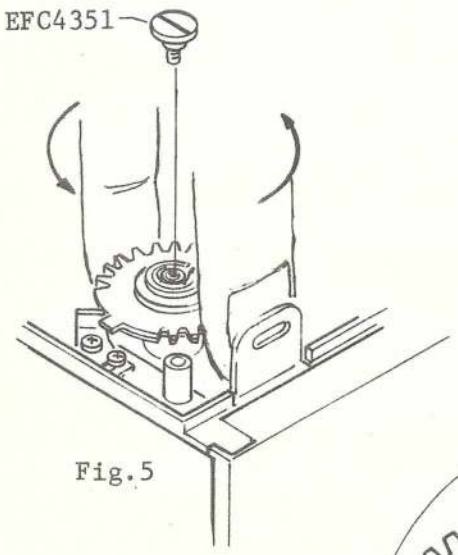


Fig.5

2-2 Adjusting Film counter EFC 4352

a) Put EFC 4352 on EFC 4353K2 and fix them by 3 pcs. of Screw 3PB1.4x2.5.

b) Turn Wind lever clockwise until it stops.

c) Film number appears at the center of Exposure counter window. Fig. 7.

d) Adjusting of the above position can be done by moving EFC 4352 after loosening Screws 3PB1.4x2.5. (A) Fig. 6

e) When No. 0 does not appear at the center of the window, slide the position of Stopper EFC 4365. (B) Fig. 6

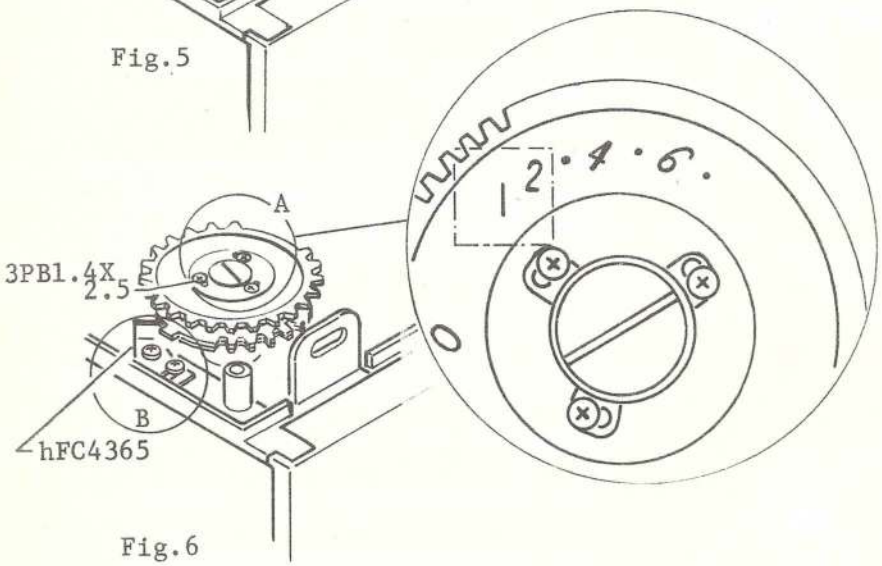


Fig.6

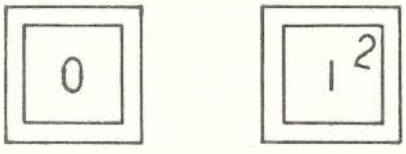


Fig.7

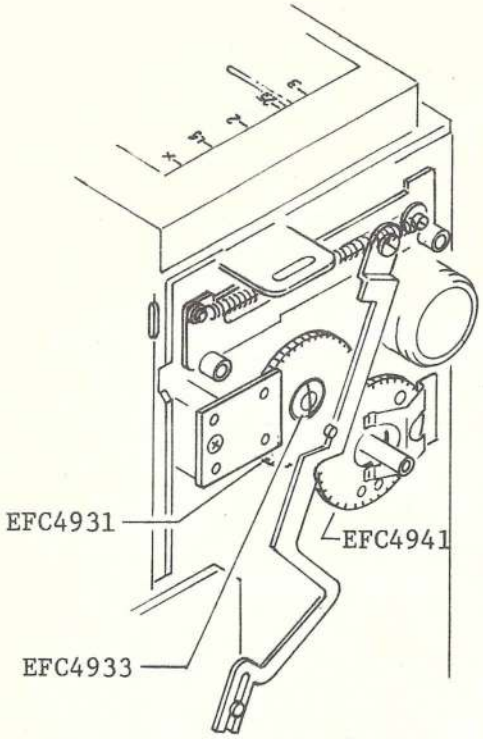


Fig.8

3. Adjusting for the standard position of Parallax pointer.

Standard position

a) Set Parallax No. 1 gear EFC 4941 to the click of 80mm lens.

b) Extend the bellows fully.

c) Parallax pointer indicates nearly the center of 2.5 and 3 on Focusing screen. Fig. 9

d) Parallax pointer disappears by retracting the bellows fully.

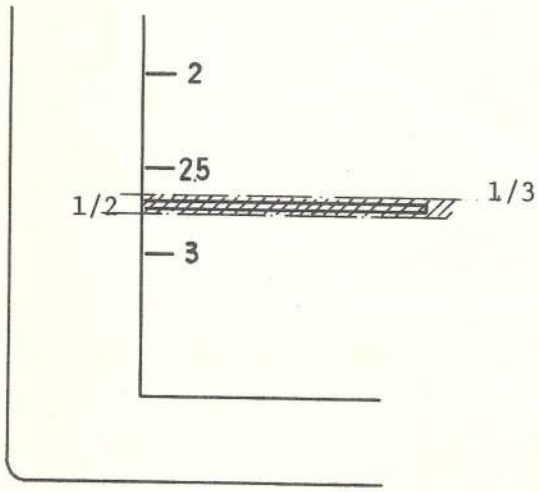


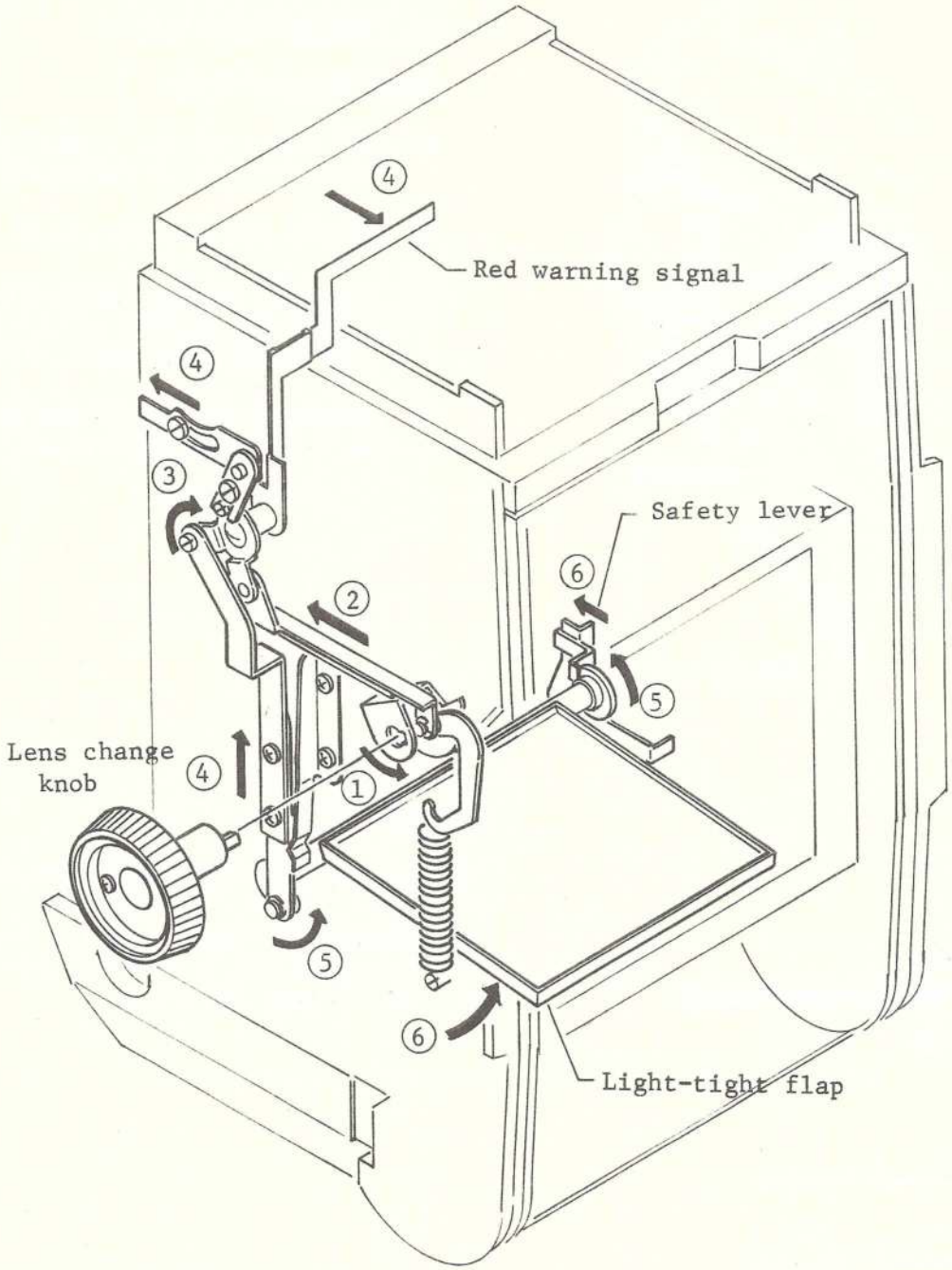
Fig.9

Adjusting

a) Loosen Shoulder screw EFC 4933.

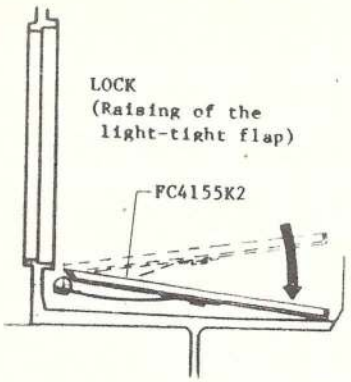
b) Change the meshing point between Parallax No. 1 gear EFC 4941 and No. 2 gear EFC 4931.

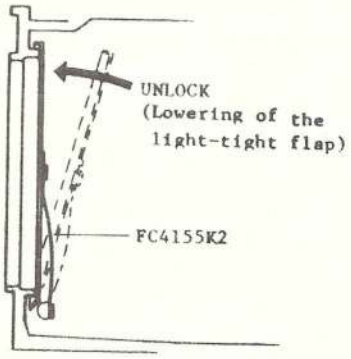
4. Operation of Light-tight flap, Red warning signal and Safety lever



a) By turning Lens change knob from LOCK to UNLOCK, relative parts operate in the order of the number from 1 to 6 in a circle. Fig. 10.

b) Red warning signal appears and Light-tight flap rises to shield the light and Safety lever prevents the shutter button from releasing.





4-1 Light-tight flap and Red warning signal

a. Light-tight flap.

a) Light-tight flap must fully fits and stops inside of the body when it rises and lowers. Fig. 11 & 12.

b) Moving the positions of Spring EFC 4188 and Linking bar A , B EFC 4186, 4187 for adjustment. Fig. 13.

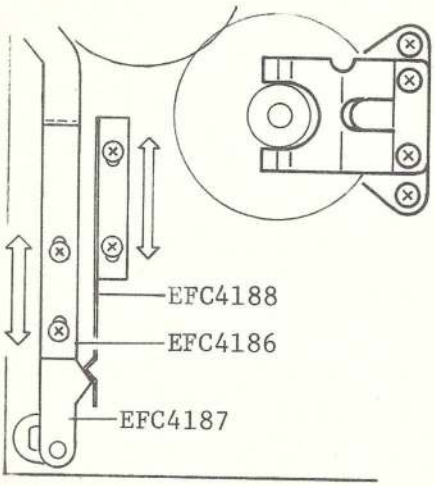


Fig.13

B. Red warning signal

After adjusting above Light-tight flap, turn Lens changing knob from UNLOCK to LOCK and bend Red warning signal with a pincers so that it disappears from the focusing screen. Fig. 14.

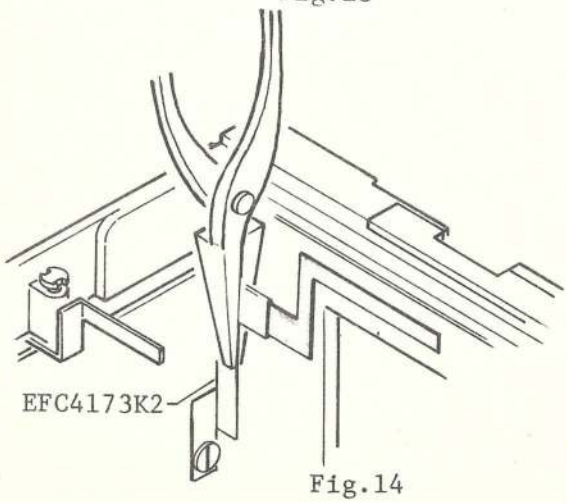


Fig.14

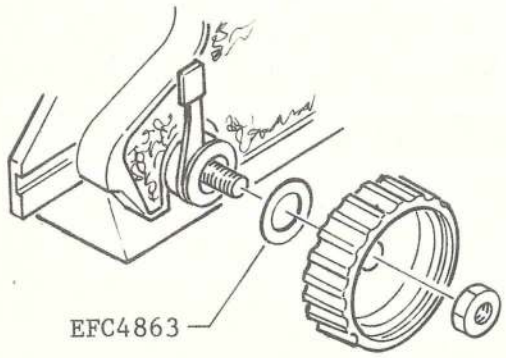


Fig.15

5. Adjusting Focusing knob fixing lever

Focusing knob fixing lever shall operate at approximately 90 degrees as shown in Fig. 16.

Adjustment

a) Remove Focusing knob.

b) Use Washer EFC 4863 (t=0.05, 0.1, 0.3 and 0.5) to adjust the position of Cosuing knob fixing lever. Fig. 15

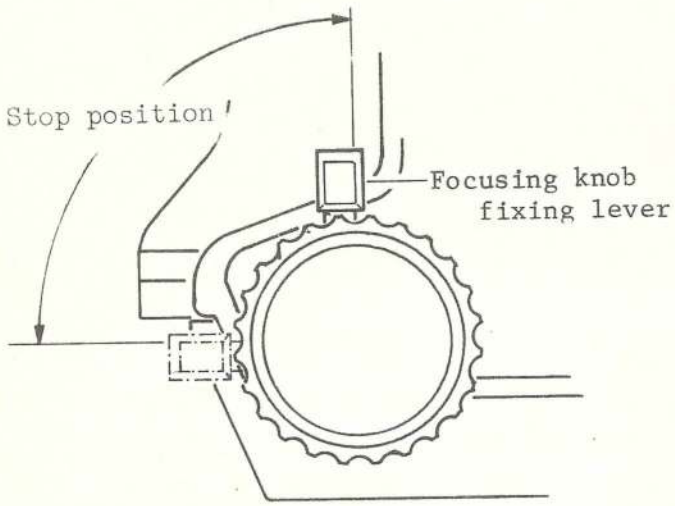


Fig.16

6. Adjusting Front panel and Focusing track

6-1 Adjusting Body length and parallelism

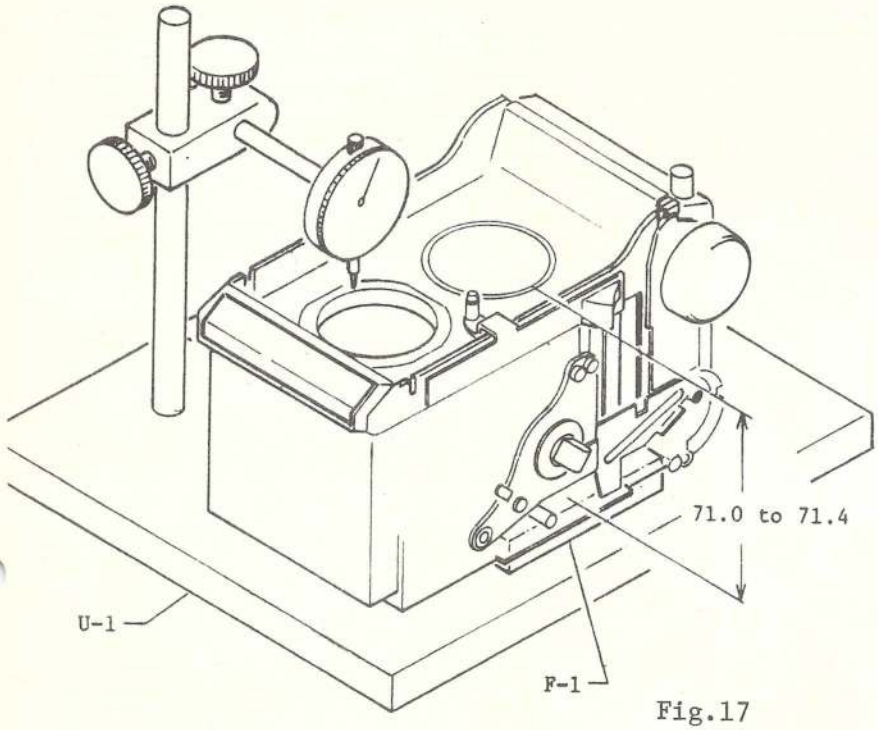


Fig.17

A. Body length

a) Place Camera body supporter F-1 on Measuring instrument with dial guage U-1.

b) Retract the bellows fully.

c) Set Camera body on F-1.

d) Confirm the body length shown in Fig. 17.

B. Parallelism

a) Extend the bellows by approximately 5mm.

b) Measure the Parallelism at 2 faces of lens guide.

Parallelism shall be within 0.3mm.

c) Adjust the parallelism by moving 2 pcs. of Guide plate EFC 4671, 4672, after loosening 3 pcs. of Screw PD2x5. Fig. 18

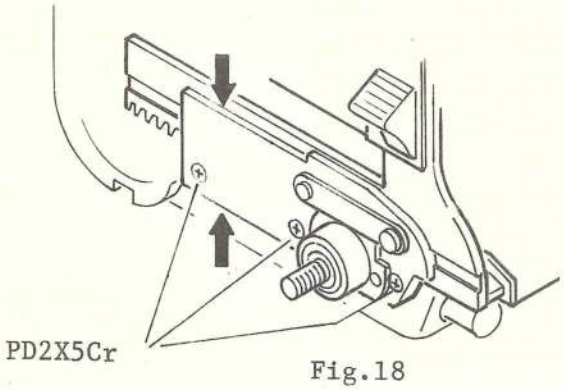


Fig.18

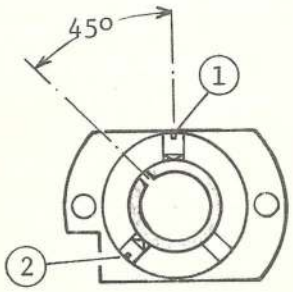


Fig.19

6-2 Adusting Focusing track

a) Slit of Pipe EFC 4668 is positioned to the direction as shown in Fig. 19.

b) Adjust the mesh for Pinion shaft and Rack plate and focusing knob's torque by fixing screws (1) and (2) Fig. 19, 20.

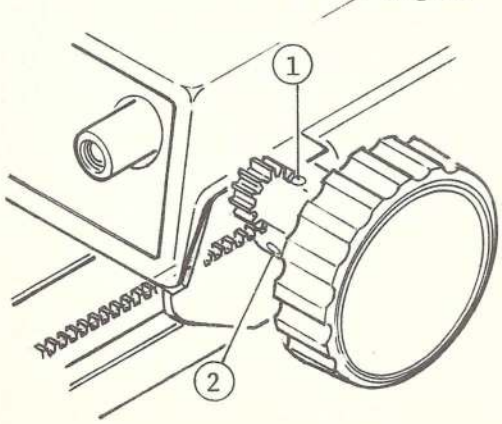


Fig.20

7. Adjusting focus of the view finder

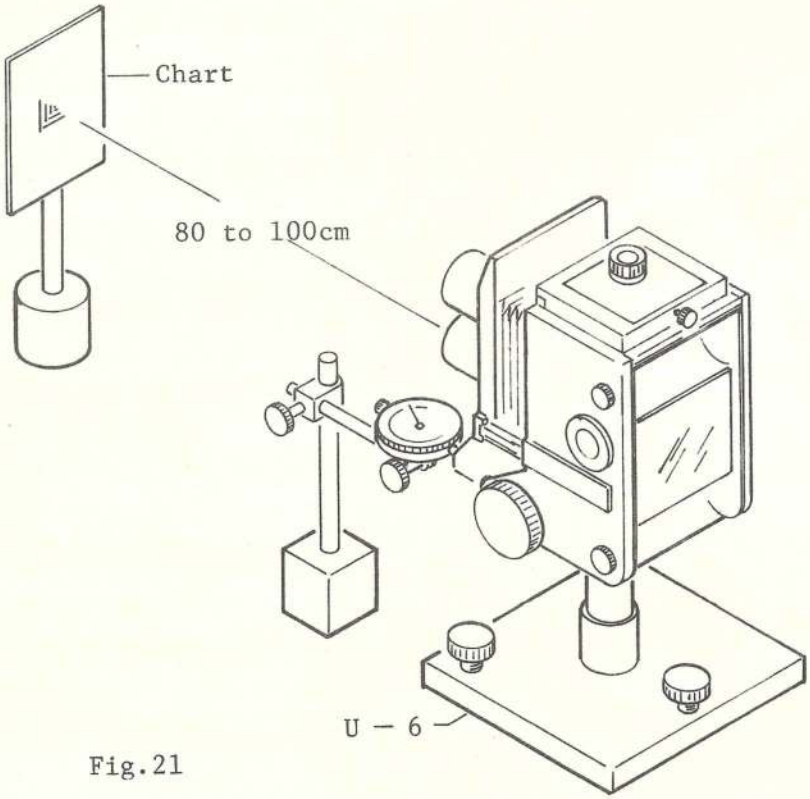


Fig.21

a) Set the chart at a distance of 0.8 to 1.0 meters.

b) Attach the 80mm lens to the camera.

c) Place the camera body on Camera body Supporter U-6.

d) Set Dial gauge with supporter.

e) Open the shutter blades and focus the chart while looking the center of the ground glass, then set the "0" point of the dial gauge.

f) Focus the center of the focusing screen.

In this case dial gauge reading must coincide with "0". In case dial gauge reading does not coincide with "0", adjust the focus by equally turning Adjusting screw EFC 4057 with a tweezer.

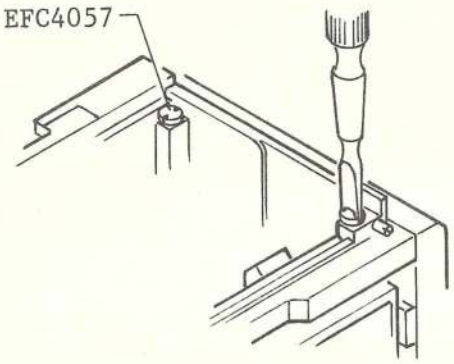


Fig.22

Note: Adjusting method without Dial gauge
Turn Adjusting screw equivalently with a tweezer so as to coincide focusing on Ground glass with that of on Focusing screen.

8. Adjusting Distance scale

a) Attach the 80mm lens to the camera at infinity.

b) Take off Cover EFC 4699.

c) Turn Adjusting screw EFC 4696-2 with a driver.

Fig. 23, 24.

Permitted limit of adjustment is shown in Fig. 24.

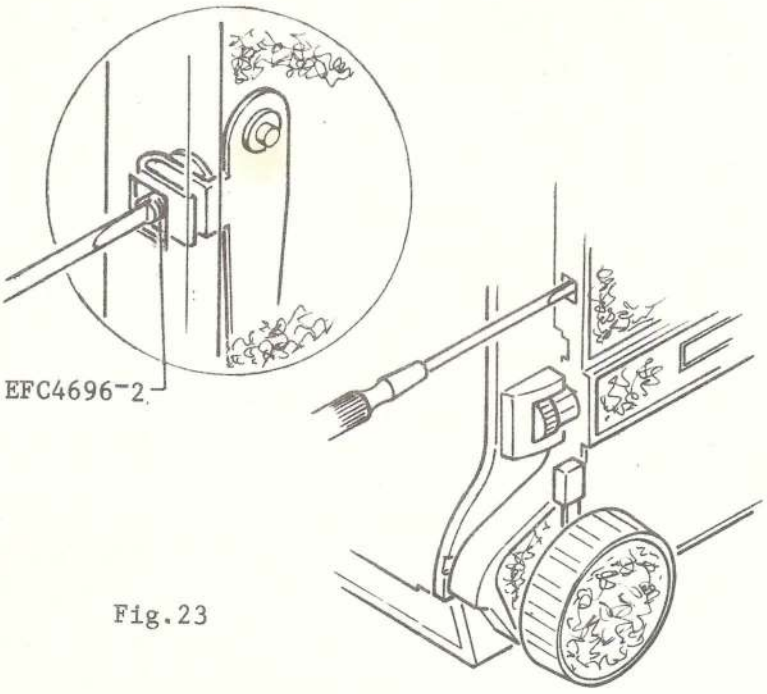


Fig.23

Note: Rack knock pin EFC 4654 shall be positioned as shown in Fig. 25, and it shall not be turned for adjustment.

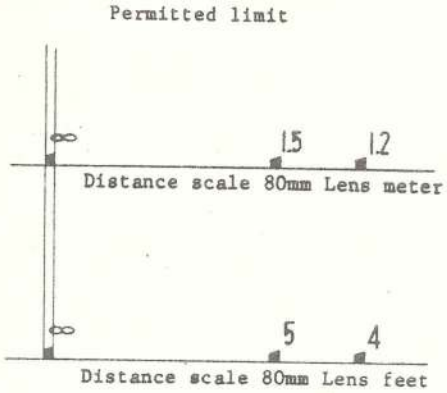


Fig.24

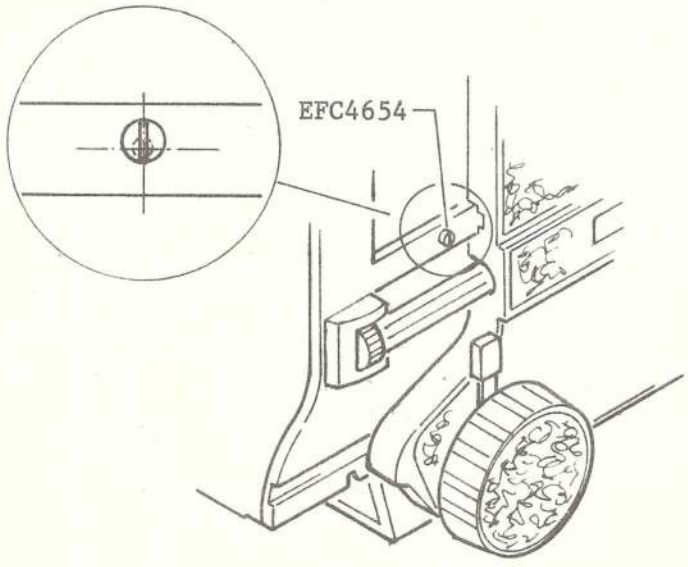


Fig.25